



Evaluation of Idaho 162 Milepost 8.0 to Milepost 31.07 (Case #201510SH162)

Executive Summary

Arlo G. Lott Trucking submitted a request for 129,000 pound trucking approval on State Highway (SH)-162 between mile post (M.P.) 8.0 and M.P. 31.07 for transportation of primarily lumber. The request projects up to 1,040 trips annually. District 2, the Department of Motor Vehicles and Bridge Asset Management all recommend proceeding with this request.

Because SH-162 is coded as a "Blue Route," the vehicle(s) will be required to make a 5.5 foot off-track and operate at or under the 95-foot maximum overall length. The roadway and bridges will, however, safely support 129,000-pound vehicles. The requested roadway is generally rated fair to good with the section between M.P. 30.82 and 31.07 being rated very poor (at the junction of U.S. 12 and S.H. 162 in Kamiah, Idaho). The Commercial Average Annual Daily Traffic (CAADT) is rated as light relative to Average Annual Daily Traffic (AADT). This corridor has zero High Accident Location (HAL) non-interstate segments. Analyses of the 5-year accident data shows there were a total of 38 accidents involving 43 units. There were 22 injuries and one fatality that occurred throughout these segments. Of the total accidents, one involved tractor trailer combinations. Further analyses of this accident shows that it involved a tractor trailer that failed to negotiate a curve. The driver was cited for driving too fast for conditions. The fatal accident involved a single passenger vehicle. No truck ramps exist along this route. The grade in 7-Mile Canyon ranges from 3% to 8.3% and is approximately 5 miles in length.

The foremen for this route reported that the route experiences some rutting and pushing of the plantmix. In addition, the district recommends constructing chain-up/down locations at the top of 7-Mile Canyon grade.

Detailed Analysis

Department of Motor Vehicles (DMV) Review

All Idaho Transportation Department routes are currently categorized by their ability to handle various extra-length vehicle combinations and their off-tracking allowances. The categories used when considering allowing vehicle combinations to carry increased axle weights above 105,500 pounds and up to 129,000 pounds are:

- Blue routes at 95 foot overall vehicle length and a 5.50-foot off-track
- Red routes at 115 foot overall vehicle length and a 6.50-foot off-track.

Off-tracking is the turning radius of the vehicle combination, which assists in keeping them safely in their lane of travel. Off-tracking occurs because the rear wheels of trailer trucks do not pivot, and therefore will not follow the same path as the front wheels. The greater the distance between the front wheels and the rear wheels of the vehicle, the greater the amount of off-track. **The DMV confirms that the requested routes fall under one of the above categories and meet all length and off-tracking requirements for that route. More specifically, the requested section of SH-162 is designated a blue route and as such all trucks must adhere to the 5.5-foot off-track and 95- foot overall vehicle length criteria.**

Bridge Review

Bridges on all publicly owned routes in Idaho are inspected every two years at a minimum to ensure they can safely accommodate vehicles. A variety of inspections may be performed including routine inspections, in-depth inspections, underwater inspections, and complex bridge inspections. All are done to track the current condition of a bridge and make repairs if needed.

When determining the truck-carrying capacity of a bridge, consideration is given to the types of vehicles that routinely use the bridge and the condition of the bridge. Load limits may be placed on a bridge if, through engineering analysis, it is determined the bridge cannot carry legal truck loads.

ITD Bridge Asset Management has reviewed the **five** bridges pertaining to these requests and determined they will safely support the 129,000-pound truck load, provided the truck's axle configuration conforms to legal requirements. To review load rating data for each of the bridges, see the Bridge Data chart below.

ITD District 2 Evaluation

This segment has been evaluated and the District recommends proceeding.

General: The roadway is in good condition with 11 foot lanes and 1-4 foot paved shoulders. The roadway is not deficient. CAADT is rated as light relative to AADT. This is primarily a 55 mph route with one segment posted at 40/25mph from M.P. 22.297 to 31.07 in Kamiah, Idaho. Limitation on travel time is not warranted. Spring breakup limits would not pertain to this section. Chain-up/down locations should be constructed at the top of 7-Mile Canyon grade.

Updates: From M.P. 8.0 to 13.1, major reconstruction took place that added ballast to the roadway, widened the roadway to 30 feet, and flattened slopes in 2012. Also, in 2012, the section from M.P. 14.9 to 23.1 had a construction project that combined a cold-in-place recycling with an overlay. In addition, a curve was widened and guardrail was installed. In 2013, a similar major reconstruction took place between M.P. 13.1 and 14.9 that added ballast to the roadway, widened the roadway to 30 feet, and flattened slopes. A sealcoat from M.P. 8.0 to 23.1 is planned in 2016.

Operations field review: The route begins at M.P. 8.00 (4-Corners) on SH-162 and ends at M.P. 31.07 at the junction of U.S. 12 and S.H. 162 in Kamiah, Idaho and is controlled by one foreman area. The foremen for this route reported that the route does experience some rutting and pushing of the plantmix. The foreman reported concern for off tracking of current tractor trailer combinations. An onsite review of all vehicle combinations will determine if this is a road geometric issue or an operator issue.

Safety: This corridor has zero (0) High Accident Location (HAL) non-interstate segments. Analyses of the 5-year accident data shows there were a total of 38 accidents involving 43 units. There were 22 injuries and one fatality that occurred throughout these segments. Of the total accidents one involved tractor trailer combinations. Further analyses of this accident shows that it involved a tractor trailer that failed to negotiate a curve. The driver was cited for "Too Fast for Conditions." The fatal accident involved a single passenger vehicle. The summary of this information shows there would be little effect by the addition of the 129,000-pound capacity tractor trailer combinations.

Mobility: There are no passing lanes on this road section.

Public Concerns: The District is unaware of any public concerns that pertain to this request along this route.

Truck Ramps: No truck ramps exist along this route. The grade in 7-Mile Canyon ranges from 3% to 8.3% and is approximately 5 miles in length. The District is unaware of any runaway trucks in the past on this section.

Port of Entry: The POE has been contacted and they believe there are adequate locations along the route to monitor commercial vehicles for compliance. POE also mentioned that because SH-162 is coded as a "Blue Route" the vehicles would still be required to make a 5.50 off-track and operate under a 95' maximum overall length.



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Tams Pavement Condition Data:

Year	Route	BMP	EMP	Lenth	Pavement Type	Deficient (Y/N)	Functional Class	Deficient Reason	CI	RI	Rut Ave (in)	Condition State	AADT	CAADT	Speed Limit
2014	SH162	0.000	0.394	0.394	Flexible	No	Rural Major Collector	None	5	2.22	0.16	Fair	603	70	25
2014	SH162	0.394	8.000	7.606	Flexible	No	Rural Major Collector	None	2	2.88	0.10	Fair	499	60	50
2014	SH162	8.000	8.780	0.780	Flexible	No	Rural Major Collector	None	5	3.69	0.17	Good	799	80	55
2014	SH162	8.780	13.100	4.320	Flexible	No	Rural Major Collector	None	5	3.36	0.29	Good	800	80	55
2014	SH162	13.100	14.800	1.700	Flexible	No	Rural Major Collector	None	5	3.40	0.09	Good	800	80	55
2014	SH162	14.800	23.065	8.265	Flexible	No	Rural Major Collector	None	5	3.99	0.12	Good	982	84	55
2014	SH162	30.819	31.077	0.258	Flexible	Yes	Rural Major Collector	CI and RI	1.4	1.90	0.22	Very Poor	2545	129	25



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Bridge Data:

Route Number: SH 162
Department: Bridge Asset Management
Date: 6/24/2015
From: Kamiah, ID
Milepost: 31.07
To: near Greencreek, ID
Milepost: 8.00

Highway Number	Milepost Marker	Bridge Key	121 Rating^a (lbs)
162	20.56	14931	310,000
162	19.30	14925	338,000
162	17.85	14924	OK EJ
162	17.61	14923	OK EJ
162	17.04	14922	OK EJ

a: The bridge is adequate if it has a rating value greater than 121,000 pounds or is designated as "OK EJ" (okay by engineering judgment).